

A message from the President

Dear members of the class of 2014,

I am delighted to have this opportunity to welcome you as the newest members of the Colorado School of Mines community.

The importance of a college education cannot be overstated. The statistics are well known. College graduates earn substantially more than non-college graduates – and the gap between these two groups continues to grow. A new report conducted by the National Association of Colleges and Employers is particularly relevant to our institution. The report shows that engineering disciplines account for four of the five disciplines getting the highest starting salary offers.

But in addition to these career advantages, a college education provides you with so much more. It is a unique time in your lives to learn about yourselves, and to develop the leadership and citizenship skills – and the character – to become valued members of society.

As Mines students, you will be joining a unique learning community. Colorado School of Mines enjoys a global reputation in engineering and the applied sciences, particularly in the development and use of the

Earth's resources. No other higher-education institution in the United States has an array of resource-related programs that is comparable in breadth or international reputation.

What we expect of you is that you will work hard with us for the next four years and participate fully in the Mines community. The work will be difficult – at times very difficult – but I encourage you to devote yourself to it. I promise that you will not regret making the effort. I also strongly encourage you to take full advantage of the many activities available to you outside the classroom, including student professional organizations, intramural and club sports, more than 100 student clubs, student government, and much more. These activities, and the friendships you make through them, will greatly enrich your college experience.

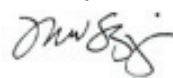
We live in a complex world providing engineers and scientists with difficult challenges – from dealing with large-scale natural disasters, to developing new sustainable, environmentally friendly energy sources, to helping supply the basic necessities of life to inhabitants of the developing world. Colorado School of Mines, with its special mission in the development of natural and human resources, has a crucial role to play in finding solu-

tions to these and other challenges.

We are delighted that you will be joining us in the fall because you will each make your own unique contributions to the Mines community. You have already achieved significant accomplishments in your lives, and we know that you will continue to do so, making us, yourselves, and your families proud.

Welcome to Mines!

Sincerely,



M.W. Scoggins
President



COURTESY CAROL CHAPMAN



Intercollegiate war, 1919 style

Ryan Browne
Editor-in-Chief

In the middle of November, a shockwave woke Colorado School of Mines students and Golden residents. Golden looked up to Mt. Zion to see that an explosion had left the M lacking a 20ft section.

This act was the final shot in a war that erupted between the Colorado School of Mines and Denver University, a war that began just over a week previous, on November 5, 1919.

At the time, Denver University and the Colorado School of Mines were bitter rivals in football. Only a few years previous, pranks between the two schools were common, but had been ceased by mutual agreement. However, a report in a Denver newspaper of a plot by the Denver Pioneers to repaint the Mines symbol, the iconic M set on the side of Mt. Zion, in their crimson colors caused a furor on campus. Denver University immediately responded, claiming that the report was false, but actions were set in motion that would not easily be undone.

Early in the morning on Wednes-

day, November 4, several small explosions were heard on the Denver University campus, and when the noises were investigated, buildings around campus were found plastered with posters saying, "Get DU and then what? Give them hell Mines." Beyond the posters, no other damage was reported.

The following morning, 4 blasts shook the Denver University campus. 25 sticks of dynamite, split into 5 clutches, had been planted on campus in front of the administration building. Fortunately for the buildings on the Denver University campus, 1 clutch of 5 of the sticks of dynamite failed to detonate. Even so, windows were blown out in buildings around campus including in the chapel, library, and residential buildings. In addition, the front wall of the administration building was cracked.

While there was not direct evidence of Mines' involvement, evidence was found that indicated that the dynamite was stolen from a clay plant in Golden, whose owner, ironically enough, was a DU alumnus and trustee. Regardless of the legal evidence, it was clear to the DU students that this was the work of CSM students. Late on the morning

of November 6, the same day of the bombing, several students from the Denver University Dentistry School left for Golden with enough crimson paint, the color of the Denver Pioneers, to paint the 104 x 107 foot M.

Unfortunately for these students, the Orediggers, who had seen many attempts at defacing the M, had taken precautions to protect it. As the Pioneers were defacing the M, they were spotted from campus, which secured a humiliating fate for the Pioneers. When an alarm went up on campus, they tried to flee the mountain, however, CSM students set up a roadblock on the road leading from Mt. Zion, and captured the charlatans. There were reports of shots fired by the fleeing Pioneers, but it was later reported that they might have been firing blanks.

The CSM students made sure that this was not an experience to soon be forgotten by the culprits. They dressed them in prisoner overalls, shaved their heads, and dyed a purple M into their scalp using silver nitrate. Silver nitrate is a chemical used to dye biological material, usually for study under a microscope. The DU students were going to be walking advertisements for the School of Mines for 6 or 7 months.

The Orediggers were on a roll at this point, and decided to kill another bird with this stone. They lured a Denver Post reporter to Golden with the bait of a huge story. Instead of finding a story, he was subjected to a similar treatment as the DU students. However, he was spared the shaving and branding. He did join the Den-

ver University students in a parade through the street of downtown Golden. Later that evening, both the reporter and the DU students were released. The reporter was sent back with a warning to the Denver Post to stop their slanderous reporting.

Mines students, fearing another attempt at the M, set up patrols armed with rifles and bayonets on the roads leading into Golden. In addition, a barricade was set up at the base of Mt. Zion in a manner designed to force vehicles to slow or even stop to successfully navigate the impedance. The students claimed the right to search all cars to ensure that DU students were not concealed inside.

CSM's President Victor Alderson gave official sanction to the actions of the students. While the school administration supported the actions, Colorado's governor Oliver Shoup expressed his concern over the situation, noting that striking miners whose actions had caused militia forces to be sent in to ensure peace were not permitted rifles, and yet college students were arming themselves. As he was currently dealing with more important issues, he expressed his hope that the school administration could find a solution without need of state assistance.

Finally, the schools were tired of the war, or perhaps they merely ran out of explosives. Either way, representatives from both schools met to negotiate a ceasefire. They decided that at this time that the contest should be decided by the football teams, those who should

have determined it in the first place. The truce managed to stand for a day, and both teams' fans acted the part of good sportsmen. A winter storm struck the region, creating terrible conditions for a football game. The field was covered in snow, so plays were short and fumbles were common. Both teams fought hard, but in the end, they had managed to fight only to a 0-0 tie.

This frustrated the abused Pioneers, and they sought revenge. The storm that ruined the football game gave DU the opportunity they needed. On the morning of November 13, Golden was shaken awake by the blast that left the M scarred. Upon inspection, it was determined that the blast could well have destroyed most of the M, were it not for the dynamite being poorly placed. Responding quickly to the bridge leading from Mt. Zion, Mines students were unable to apprehend the conspirators due to the severe snow. A raid of Denver University was contemplated to kidnap some students to act as the manual labor to repair the M, however, this suggestion was rejected.

The decision was made to allow a group of seniors to determine the next steps. As a Grand Jury was investigating the bombing of the Denver University, the governor was threatening military intervention, and the likelihood of mutually assured destruction was increasing, both schools met to work out a lasting truce. This truce, unlike the last, stood for nearly 10 years, but that is a story for another issue.

HIKING ACROSS GOLDEN

Neelha Mudigonda, Managing Editor

Colorado is well-known for its scenic beauty, which provides us with several outdoor activities such as skiing, hiking, and mountain-biking. Living in Golden makes it possible for residents to conveniently access many of these hiking and biking trails that are close to town. Here are some interesting trails in the area.

matthews / winters park trails

Located just south of I-70 at the Morrison exit and close to the Red Rocks Amphitheater, the Matthews/Winters Park Trails consist of three trails - the Dakota Ridge Trail, Red Rocks Trail, and Morrison Slide Trail. The park contains a total of approximately 8 miles of trails.

dakota ridge trail

This trail is more familiar to mountain-bikers than hikers because of its rolling sections and technical loops; it also provides great views of the Eastern plains as well as the Red Rocks in the West.

red rocks trail

Adjacent to the Red Rocks Amphitheater, this trail starts out in the midst of meadows. The trail begins above a creek, where many native species of birds and insects are present.

The plains and the meadows are good for beginning hikers. Also, the exposure to sunlight on this trail makes it welcoming even in the midst of winter. People often go horseback riding on this trail as well.

morrison slide trail

With its steep rocks and narrow dirt paths, Morrison Slide trail easily attracts both climbers and bikers.

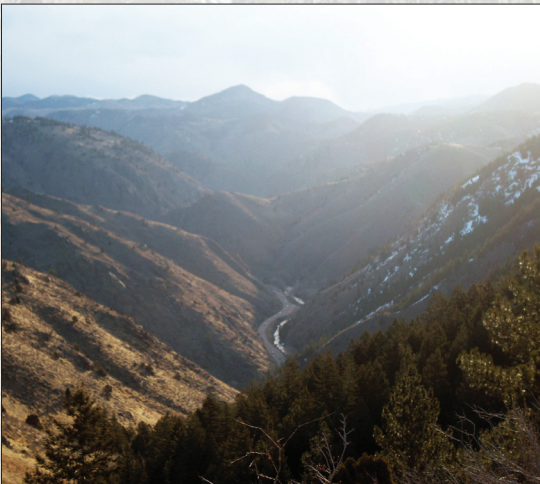
The hogback in the Matthews/Winters Park Trails separates the mountains from the plains. To the east of the hogback is the Dinosaur Ridge Visitor Center, another attraction to visitors; furthermore, the hogback is the center of wild-life views in the area.



Giddy-up! The Matthews/Winters Park Trail system offers terrain for horseback riding, hiking, and biking.

chimney gulch trail

ALL PHOTOS: NEELHA MUDIGONDA / OREDIGGER



Up the chimney. Beautiful views greet hikers at the top of the Chimney Gulch Trail.

A couple of access points to this trail are from Lookout Mountain west of US 6 and the roadside parking on US 6 eastbound from Highway 58. This trail is a major attraction to mountain-bikers and hikers who like to challenge themselves with intensely elevated heights.

The Chimney Gulch Trail climbs 2000 feet in a relatively short distance of 2.5 miles from US 6 to the peak of the Lookout Mountain, taking its visitors through grass prairies and pine forests, and to streams and creeks.

The gulch gets its name from the fast moving wildfires in the area, which explains the natural vegetation that grows in the area. "I see deer up on Chimney Gulch every time I bike up there," a local mountain biker recalled. "Going late in the afternoon is the best time to go," said another biker. "That's when the trail is the prettiest." The tourist attractions at the top of the trail include Buffalo Bill's Grave, the Boettcher Mansion, and the Lookout Mountain Nature center, which is located at the summit of the mountain where the trail ends.

south table mountain

South Table Mountain is located just southeast of Golden with an intriguing formation history. Its highlight is its cap, formed of basalt from ancient lava flows. An access point to hike South Table Mountain is in a neighborhood at the end of 19th street.

The curvy path makes the hike easier because of the lack of rapid elevation gain, but

path gets rockier and steeper towards the summit. South Table Mountain is renowned for the view from the top.

Hikers are well rewarded with an amazing view of Golden and its surroundings as well as the mountains. "The hike is well-worth the view of the city," said a hiker. "The view of the sunset from the very top is the best."



Bird's eye view. The view of Golden from the top of South Table Mountain is worth the climb.

apex park

Starting at the Heritage Square parking lot, Apex Park is approximately an 800 foot climb between the parking lot and Lookout Mountain road. One of the trails of the Apex Park runs parallel to the Chimney Gulch Trail, making the Chimney Gulch Trail and the Apex trail close neighbors.

The park consists of all levels of difficulties for hiking and biking. Many horseback riders as well as visitors who come to enjoy the scenery are often present on the easier hiking trails. The view of the snow-capped moun-

tains in the background is a treat for many of its visitors.

One of the most popular routes that the mountain bikers take is the Apex Trail West to Apex gulch, which in turn leads to the Pick n' Sledge trail and the Grubstake loop. This route climbs uphill for approximately 2 miles before meeting the Enchanted Forest.

enchanted forest trail

Mountain-bikers who seek more adventure and difficulty and want to return to the foothills rather than continuing uphill choose the Enchanted Forest path. This path is "hard and known for its rapid drops; sometimes, the mudslides make it even harder," said a biker.



At the Apex. From Heritage Square, hikers can embark on a 800 ft climb.

Starting at Mines!

Sophie Hancock
Staff Writer

From saying bye to your folks to trying to remember 50 names at once, the haze of the first day of university can be something of a survival challenge.

You could have spent the morning cramming every one of your beloved belongings into the car trunk. You could have spent a number of hours on the motorway with your family, either being calmed by them as they reassure you that you'll survive this monstrous experience – or you giving comfort to your folks, explaining that while you may have flown the nest, but you still love them. The following lines probably serve either scenario: “the semesters are short,” “it'll be over before you know it,” “it's not that far away,” and so on.

Once that ordeal is over, your first task may well be to dispatch your parents. They'll want a tour of your new accommodation, maybe a quick handshake with the warden/senior resident, and then it's time for the goodbyes. After unloading the car, you might simply say “goodbye mom/dad,” not as a farewell, but an instruction.

Then you'll move on to claim your key and... don't panic! Your new abode may appear to resemble more of a bomb shelter or a storage facility for Goodwill rejects than home sweet home, but it will look much more like the cozy place you had been dreaming of, once you install your clutter into its confined space.

My undergrad residences room happened to be the most garish shades of duck egg blue and lime green imaginable, but it soon became home to for a wonderful freshman year of adventures. In any case, your communal spaces will be decorated in all manner of DIY ways over the first term. Whether it be with a pyramid of emptied cans or any number of strange collections, freshman find their own unique ways to make their mark.

The best piece of advice I got for starting Uni was to pack a doorstep. In the 450 person residence in central London, when ‘at home’ I left my door open and got chatting to anyone strolling down the hall. It's a small gesture but an essential one, conveying that you are friendly and ready to meet new people.

Next, there's time for a few fleeting introductions and sheepish handshakes, before you are shipped off to some social event. Here are two challenges for you to overcome: first, try to remember a succession of names, subjects, home-towns and other little tidbits of information being bowled at you. Just have an interesting couple of questions to hand, or some engaging things to say for yourself – maybe your summer holiday or your gap year. But don't go on too much. No-one wants to be an intrepid gapper who can't stop blathering on about how much he/she has found him/herself and how they've seen/discovered/healed the world blah blah blah. But this tactic really works. It's those kind of details that stop everyone meshing into one amorphous mess. Just be careful to stay on the right side of attentive

and curious, and not on the wrong side of obsessive stalker.

Do have a blast, but make at least a token attempt to stay healthy. The notorious freshman flu is pretty self-explanatory. Throw a load of youngsters from all over the country, and, in fact, the world, into close quarters and the first time being away from home (read: dire food) – and you haven't got the easiest pathway to healthy living. Perhaps you should even bring the cold remedies and Echinacea with you in advance.

Finally, when you get back to your residence and you enter the early hours with your newly-found friends, bear the following piece of advice in mind. People often tend to stick together and fall into their comfort zones in a pretty short space of time. So make the most of your enthusiasm. Invest in that

Starting University is just like a buffet. Use your first week at university, and especially your first day, to be an adventurous eater. Get a taste of as much as you can. Just pace yourself; no-one wants indigestion. Bon appétit!

doorstop, and you may find that your hospitality results in your room being the social centre of your corridor. Meet lots of people and don't just attach yourself to a small enclave of like-minded freshers. “Don't be like me and end up stuck with the same morons,” advises one recent graduate, who unsurprisingly wishes to remain nameless. “Yeah, don't get stuck”, her (also anonymous) friend agrees. It's good advice; there are hundreds of other freshman - and second, third year or grad students at this small university waiting to be acquainted with you. They are not strangers – they're just friends you haven't made yet (cheesy as it sounds).

But the best advice is just take it easy. If you arrive late, have forgotten your favourite teddy, think that everyone's staring at you, or your room stinks of damp, just take it in your stride. In terms of expectations, it's probably best just not to have any. Being a freshman can be really daunting, especially that first trip down to the canteen for dinner.

I remember speaking to a very good friend who went to Uni a year before I did. She said she was pretty bored and wiling the hours away on her newly-purchased laptop. When I had spent a couple of days in my gaudy yellow room, I kind of knew what she meant. For a lot of people, the whole week is haze of unbridled euphoria. But for many freshman, student life doesn't provide an instant sensation of hedonistic elation. For most, orientation is about getting used to new surroundings, new people and a new stage of your life. Just enjoy it.

Starting University really isn't that scary, honest. All the clichés apply (“you're all in the same boat” being just one of them), but to steal a metaphor from a recent acquaintance – it is just like a buffet. Use

your first week at university, and especially your first day, to be an adventurous eater. Get a taste of as much as you can. Just pace yourself; no-one wants indigestion. Bon appétit!

SURVIVAL ESSENTIALS: Don't forget to...

Bring: a stash of passport/government issued photos and a notebook. They're a must for the stream of forms, I.D. cards, and membership cards you'll be receiving in your first week, and a to do list will help you get all that admin done in time so you can start relaxing and settling in.

Read: *Starter for Ten*, by David Nicholls, or if this is too English for you, try *A Question of Attraction*, the American title of the same book. It's a witty and entertaining read about one spotty student's first year at university in England. You will laugh, cry, and cringe following the protagonist's faltering steps into life as a freshman in the 1980s. Share in his encounters at the ‘Tarts and Vicars’ fancy-dress party along with his hapless attempts to woo the girl of his dreams. Alternatively watch the funny film version of *Starter for 10*, produced by Tom Hanks.

Visit: all-consuming Facebook. It will become your virtual home once you enter student life, so you may as well start making friends now! Create a group for your specific course at your university and start net-working.

Join: at least one truly wacky society. When you're at orientation, talk to all the clubs and societies, you'll surely leave with handfuls of freebies. But don't forget the



PHOTO COURTESY OF: WWW.DAMNILIKETHAT.COM

societies that will overwhelm you, both in terms of their number, their bizarre breadth, and of course SPAM! That said, any club, and especially any sport-based club, is a great way to build teammates into new mates. Societies and clubs have a great sense of shared community and are fabulous at organizing social events and introducing people to one another - you may even find you socialize more than play.

Enjoy: Mines is a uniquely Western school, not a typical college, with nearby hiking, camping, bicycling, kayaking, fly fishing, rock climbing, and white-water rafting. For skiing and snowboarding,

there are about a dozen major ski areas within 1-4 hours drive from campus. Denver and Boulder are within 20 miles of campus, offering all the attractions of a large metropolitan area. The social environment is informal and friendly, and

the academic environment is competitive, but not cutthroat. Mines attracts ambitious and motivated students, staff, and faculty, but we

are not only about work; Mines offers 18 varsity sports and over 50 club and intramural teams. Students are active in more than 100 clubs and organizations including music, student government, Greek Life, religious, cultural, special interest, and professional groups.

Students are active in more than 100 clubs and organizations.

Crafting Your Leadership Experience

Serena Stickney
Associate Director of Geographic and Special Programs, CSMMA

Colorado School of Mines has a rich tradition of producing innovative and hard-working leaders in the engineering and applied science communities. At the 2010 Mines Leadership Summit on October 2, students will have the opportunity to customize their leadership experience by selecting from a variety of engaging speakers and in-depth breakout sessions.

“Participants will be exposed to great practitioners and thinkers during the Summit,” said Derek Morgan, Associate Dean of Students at Mines. “However, it is up to each person to take what they learn and make themselves a better leader.”

According to a 2007 Duke University study, “23% of the current list of Fortune 500 CEOs have undergraduate degrees in engineering.” The 2010 Leadership Summit affords Mines students a unique opportunity to cultivate their leadership and managerial abilities alongside an internationally-recognized engineering curriculum.

“Like a lot of things we learn at

Mines, we leave with concepts,” said Mr. Robert Waterman, a Mines alumnus and the co-author of the Peters-Waterman leadership tome “In Search of Excellence”, who will present a plenary session in the 2010 Summit.

“What you get from the Summit is your own introduction to some of the concepts that others think are important,” continued Waterman. “You get a chance to learn a few of those concepts, weigh them against your own experience, [and] use them as a basis for further learning and study. What you also should get is some guidance on what's right and what's not in today's management and leadership environment. You get some of the basis for putting leadership ideas into practice in your own career.”

The 2010 Summit revolves around four core competencies: vision, planning, communication and team-building. During registration, students will have the opportunity to select from multiple breakout sessions that span these topics and encompass every experiential level.

“Vision is the key to shaping the direction of the Summit,” said Mines President M.W. “Bill”

Scoggins. “Planning is essential to ensuring the Summit will provide maximum added value to the participants. *Communication* is not just about publicizing the event, but also highlights the importance for the participants to communicate with and actively listen to each other and the speakers. And the focus on *team-building* should ensure the involvement of all the constituencies needed to bring together a timely and meaningful event.”

“I believe that the competencies of vision and communication are keys to being a successful leader,” said Josh Lau, a current graduate student in Chemical Engineering at Mines. “Leadership doesn't solely revolve around one person and how well they can lead; it is essential for a leader to know how to build an effective team and to help develop the team members both individually and as a unit.”

Readers may visit *leadership.mines.edu* for more information about the 2010 Mines Leadership Summit; registration will open later this summer. The 2010 Summit is sponsored by The Williams Companies, Inc., MWH Global, Talisman Energy, and BP.

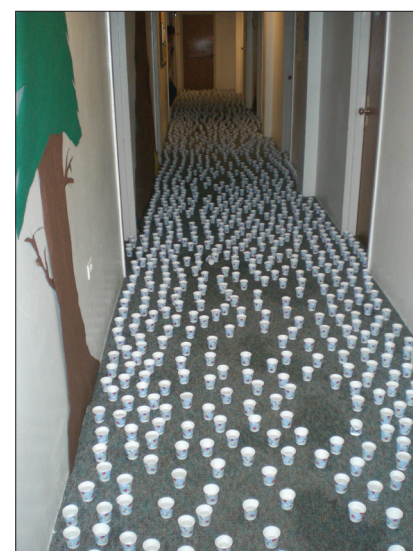
Pranks across campus



Courtesy Michael Dunlap



Courtesy Michael Dunlap



Courtesy Michael Dunlap

The basement floors of Bradford and Randall, two of the Traditional Dorms, engaged in a prank war. This time Dixie cups full of water cover the floor and shaving cream balls make a trip to the restroom perilous.



Zach Boerner / Oredigger



Zach Boerner / Oredigger

Pinky, Blinky, Inky, Clyde and Pac-Man dash across Kafadar Commons in a massive version of the popular arcade game.



Zach Boerner / Oredigger

Snow-miners attacked the Mines campus the night before graduation. Onlookers were shocked to see snow-miners in the middle of May. While freak snow storms have been reported in Colorado, it is believed that these snow-miners commandeered a pickup truck returning from the mountains.



THE DENVER MUSIC SCENE

Tim Weilert, Staff Writer

Venues: General Information:

The Denver music scene would not exist if it were not for the tireless efforts of bands, promoters, and venues. Most music venues in the Mile High city are also historical landmarks, renovated with modern equipment, but still paying homage to their roots.

East Colfax: *The Bluebird*

As with many music venues, The Bluebird has a sordid past, and was once a porno theater. Fortunately for music fans, the XXX's on the marquis have been replaced with the likes of Vampire Weekend, Lucero, and Minus The Bear. The Bluebird, as with most renovated theaters, boasts multiple levels for viewing the generously sized stage. Expect shows here to be moderately priced (less than what you'd pay at the Fillmore, but more than the Hi-Dive).

LoDo: *The Marquis*

Among the bars and clubs of downtown sits an all-ages venue that has played host to some of the hottest bands from across the country. The Marquis, a venue operated by promotions company Soda Jerk Presents, features a separate bar and pizzeria so that concertgoers of any age can have a good time. While the venue is rather small, especially when compared to other Denver music outlets, the intimate setting allows for fans to experience bands in a way that is not possible at larger concert halls. Featured acts have included mewithoutYou, Sherwood, Saosin, and many other bands popular to the "MySpace generation."

The Denver Center for the Performing Arts

Home to ten performance venues and over 10,000 seats, the Denver Center For the Performing Arts is one of the mile high city's gems. Performances at the center occur every week and range from opera to classical music, and even include Broadway productions. Students at the Colorado School of Mines have been given opportunities to experience productions, such as Spamalot, and concerts by the Colorado Symphony Orchestra at discounted prices. Whether you're on a date, or just want to dress up for a show, the Denver Center For the Performing Arts is a classy venue for enjoying the finer parts of society and culture.

Golden/Morrison: *Red Rocks Amphithe-*

The ancient sandstone monoliths that form the natural amphitheater at Red Rocks have provided an awe-inspiring venue for musicians for over 100 years. The current configuration of Red Rocks came about when Franklin Roosevelt and his "New Deal" plan created the Civilian Conservation Corps, who developed the mountain area into a working performance center during the 1940's. As one of the best outdoor venues in the world, Red Rocks has seen the likes of The Beatles, U2, The Fray, Muse, and many other historic acts. While tickets to Red Rocks shows usually start in the low \$40 range, the park can be visited for free when there are no events happening.

South Denver: *The Gothic*

The golden age of cinema birthed the Gothic. During the 1920's, the theater served as a one of the main entertainment spots on southern Broadway. Similar to the Ogden and Fillmore, the Gothic switched uses and ownership several times before becoming what it is today. The mid-sized concert hall features balconies and a tiered main area (similar to the Ogden). Bands that have played the Gothic include indie legends Nada Surf and Built To Spill in addition to Say Anything, Saves The Day, Lucero, Mute Math, Talib Kweli, and countless other up-and-coming acts.

The Hi-Dive

A classic dive bar, complete with some of the most excellent live music you'll ever see. Nestled in the heart of the South-Broadway bar district, the Hi-Dive has been the launching platform for many local groups, and a favorite of nationally renowned bands from the indie scene. The most refreshing thing about the Hi-Dive is their lack of attitude (usually associated with LoDo). Most shows are incredibly affordable, and oftentimes serve as a way of broadening musical boundaries. Another nice thing about the Hi-Dive: Sputnik, the café/bar next door that specializes in down-to-earth eating and service.

Capitol Hill: *The Ogden*

Another historic venue on Capitol Hill, the Ogden was built in 1913, used for performances and movie showings until it went under new ownership in 1993. At that point the venue became a hot spot for concerts. The Ogden boasts an innovative theater design with balconies and a tiered main general admission area. Concerts are moderately priced and have featured the likes of Green Day, Ben Harper, Allman Brothers Band, Blink 182, Smashing Pumpkins, and the Goo Goo Dolls.

The Fillmore Auditorium

This historic venue on the hill has a colorful history and has played host to some of the world's most famous acts. Built near the turn of the 20th century, the Fillmore underwent many changes until the current owners decided to model it after the famous San Francisco music venue. As one of the largest venues in Denver, the Fillmore has hosted the likes of Feist, Rise Against, Brand New, Motion City Soundtrack, and other bands that have become popular on both mainstream radio and television. Concertgoers should expect to pay more for tickets to Fillmore shows, but oftentimes the extra cost is worth seeing some of the most popular and innovative groups

benjamin chubb

TECH BREAK

HTC Evo 4G

Ian Littman
Assistant Business Manager,
Web Content

Apple released a new smartphone a few weeks ago; the iPhone 4 grabbed over half a million pre-orders on the first day, melting down AT&T servers, decimating inventory and pushing back arrival times for new pre-orders to July 14. However AT&T doesn't have a monopoly on superphones; Sprint's HTC Evo 4G can't keep in stock either, though orders of the phone have taken on less epic proportions due to the fact that the manufacturer's name isn't Apple. I bought the phone on launch day (Friday, June 4) and have thus had a chance to put the Evo through its paces. Some things about the phone are drop-dead amazing. Others? Not so much.

The first striking thing about the Evo is its gargantuan proportions. The phone is thin but quite wide and long, owing to the handset's 4.3-inch display. The display's size makes the Evo a very comfortable web browsing machine, even for ridiculously nearsighted people like myself; carrying the Evo around is like having a full-on 3G-plus-WiFi internet tablet in your pocket.

Why 3G rather than 4G? The answer is that Sprint's half-subsidiary Clearwire hasn't deployed WiMAX (the 4G tech that the Evo uses) in Denver yet, though reports are that the network will be available some-

time in October. That said, Sprint 3G is solid, if a little slow at times, and the Evo's 1 GHz Snapdragon processor has no problem pushing download speeds while on Mines's WiFi network to 12 megabits per second and beyond, so surfing on-campus (or anywhere with WiFi) is a very pleasurable experience. As fair warning though, 4G will be a battery hog when it is launched, and in many areas Clear hasn't built out its higher-frequency network well enough to provide adequate coverage to cell phone toting customers. Speeds on 4G can reportedly top 10 Mbps on downloads and 1 Mbps on uploads with a solid network in place, with averages of 4 Mbps more easily attainable, however the 2500MHz spectrum being used for WiMAX is extremely finicky when it comes to in-building coverage.

Another "first" for the Evo is a front-mounted camera, weighing in at 1.3 megapixels. Pictures taken by the camera are passable, particularly in daylight conditions (where, incidentally the display can keep up fairly well, but don't expect visibility in direct sunlight) and video can be taken at VGA (640x480) resolution. The autofocus camera on the back of the phone is much more robust, spitting out eight-megapixel photos that rival a midrange point-and-shoot in quality. Video is another story...

Continued online at oredigger.net

Governing Mines

Student Government at the Colorado School of Mines

Alec Westerman
Student Body President

The main difference between the student government at the Colorado School of Mines and most high schools is that, at Mines, the student government has a much greater ability to effect change on campus and in the community. The officers of each class still throw class events but they also take part in the council at large which addresses matters ranging from parking concerns and public safety to concerns surrounding campus construction and curriculum changes. Student government is not wholly in charge of any one of these matters but its members serve as the representatives of student interests to the most prominent decision making bodies on campus.

In the past, student government was responsible for ensuring more parking on campus by pressing for the construction of the hall of justice lot. The student government was responsible for the newly improved pedestrian crossing between Mines Park and the main campus. The student government was responsible for passing a measure that has funded the expansion of the brown building and will fund a wing off of the coming Marquez building. The student government was responsible for the buss pass. The student government has been a part of these

things and many more.

The two best ways to become involved as a freshman are to communicate whatever concerns you have to members of council or to run for freshman class elections. Each class has one president, one treasurer, and three class representatives. Every class officer is responsible for planning class events, serving on campus committees and for conveying class opinions to the council at large.

The freshman class president is responsible for running class meetings, acting as the head of the class, and serving as a voting member of council. An additional responsibility includes serving on the student affairs committee.

The freshman class treasurer is the go to person for monetary matters pertinent to the class. Each class treasurer serves as a member of the budget committee. The purpose of budget committee is to recommend the allocation of student activities funds to council at large.

Each class representative is responsible for serving as a member of the publicity committee and being a voting member of council.

Information about how to run for a position will be widely available. If you wish to run and somehow miss this information feel free to contact myself, the Student Body President, at awesterm@mines.edu.

Finding the right laptop

2010 Buyer's Guide

Ian Littman
Assistant Business Manager,
Web Content

Here at Mines, a computer is an essential tool in the student's arsenal in the war against homework. Fortunately, Mines's computer labs are filled with modern computers chock full of software that the enterprising student will need on his path toward graduation. Unfortunately, all computer labs at Mines close at some point or other, so it's best to have a fast, reliable, relatively durable machine at your personal disposal. Fortunately, such machines exist, and the guide below will help you find them. This guide is divided up into a couple of sections, so if you see one that you aren't interested in (for example if you're a die-hard proponent of one operating system over another) then skip it.

1. Apple products

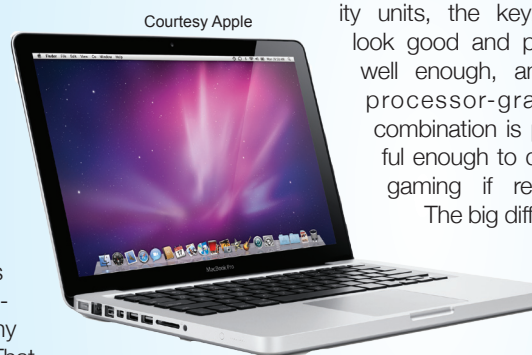
Though the campus is primarily a Windows one, Macs work just fine as a student computer...as long as Windows is running in reserve for when SolidWorks, DevC++ or one of the other Windows-only programs required for some class or other is needed. On the flip side, it's handy to have a *nix machine if you are in the Computer Science department, and OS X qualifies as such a platform in many respects. That said, unless you're running Linux full-blown on your Mac there will still be instances where a visit to the Alamo high-performance Linux lab will still be required.

Note the above use of "full-blown" rather than "bare metal" because the two terms are no longer interchangeable. Through the white magic that is hardware virtualization, switching to Windows from OS X, or to Linux from either OS X or Windows, no longer requires a reboot and a carved-out hard disk partition. As long as you're fine not playing anything beyond Minesweeper on the virtualized system, one OS running atop the other might well be "even better than the real thing." One big plus of virtualization on a Mac is that, since you are still running OS X in the background, all the cool Mac-specific drivers still work; users wanting to run Windows bare-metal on a MacBook will find that, for example, they can do hardly anything with the machine's spacious touchpad because the drivers just aren't there.

Getting back to Windows, grabbing a copy isn't nearly as costly as one might think; the Mines Microsoft Developer Network Academic Alliance license allows students in some departments (notable exceptions being Physics, Chemical Engineering and Petroleum Engineering) to grab the majority of Microsoft's products free of charge online; see <http://inside.mines.edu/MSDNAA> for information on that program. For everyone else,

or for Microsoft Office 2010, <http://theultimatesteal.com> allows anyone with a .edu e-mail address to grab deeply discounted editions of Office and Windows 7 via download direct from Microsoft. If you're wondering why Office 2010 could possibly be worth the \$80 price premium over the free, open-source OpenOffice suite, download a trial edition and compare the two systems.

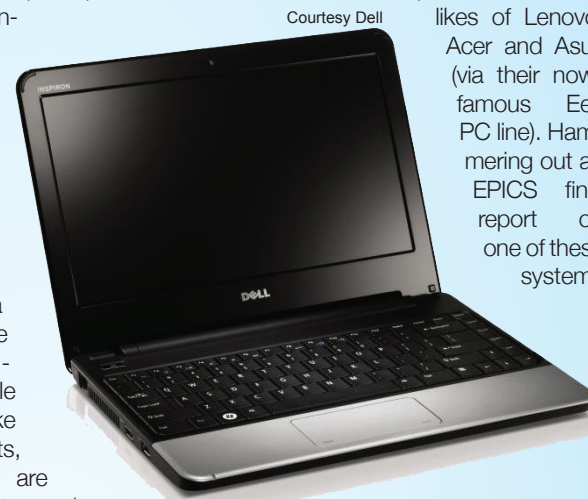
From a hardware perspective, Apple doesn't make bad products, though PCs are as a rule faster and cheaper, particularly on the desktop side. Thus, if you want to buy a Mac and are on a budget, a MacBook or 13-inch MacBook Pro is a good all-around choice, with real-world battery life of 6-9 hours depending on the task at hand, with an average right in the middle. The systems' LED-backlit screens are high-quality units, the keyboards look good and perform well enough, and the processor-graphics combination is powerful enough to do light gaming if required. The big difference



Courtesy Apple
Apple MacBook Pro

between the \$949 MacBook and the \$1099 MacBook Pro is that the MacBook lacks FireWire connectivity (for higher-grade video cameras), a backlit keyboard and an aluminum casing; otherwise both systems are identical.

Why isn't a 15-inch MacBook Pro being recommended in this guide? The answer lies in its price (high) and its footprint (too large for some classroom desks). A 13- or 14-inch machine is ideal for toting around campus from my experience; a 15-inch system isn't quite so forgiving. On the desktop side, the iMac is undoubtedly the best price-performance balance unless you already have a USB keyboard and mouse and want to use a big-screen TV as your monitor. In that case, by all means go with the newly renovated Mac mini, which takes the components of a 13-inch MacBook Pro and packs them into a 7-by-7-by-1.4-inch case that idles at about one-quarter the power of the typical desktop PC.



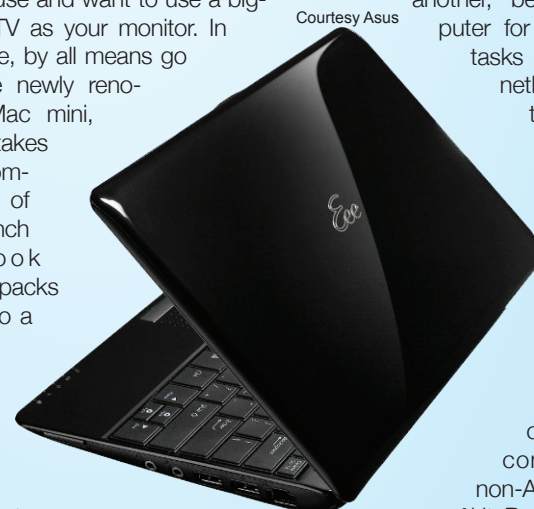
Courtesy Dell
Dell Inspiron 11z

would be a bad idea, however the machines weigh in at two to three pounds, get between three and five hours of battery life on better models and cost less than books for a fifteen-hour semester.

It's probably a good idea to go for a portable with an eleven- or twelve-inch screen over a smaller unit though, as browsing the web on a 1024x600 panel tends to be painful, particularly when using such a machine's tiny touchpad. Lenovo's IdeaPad S12 and Dell's Inspiron 11z are two candidates in this category. Asus also has a few such models in their Eee PC lineup, which seems to be growing in breadth by the minute these days.

Then there's the iPad. If you don't mind paying \$500 plus tax for the device, then possibly shelling out a few more bucks for a USB keyboard attachment (or buying a Bluetooth one if that's your cup of tea) then you will get in return a device that will go a full ten hours between recharges, perform admirably at any task of which it is capable, tip the scales at a mere 1.5 pounds and do away with such frivolities as an open application infrastructure and Adobe Flash. The Apple App Store includes enough applications to get most school-related tasks done without having to use a "real" computer and, due to its size, the iPad's virtual keyboard is actually more usable than many netbook physical keyboards.

All that said, if you get the device then you will need another, beefier computer for higher-end tasks (just like a netbook) and the point of entry on price for the device is not as friendly as that of a more conventional, non-Apple piece of kit. But if you want to own the belle of the technological ball, the iPad is it.



Courtesy Asus
Asus Eee PC 1005HA

2. The lighter side: netbooks,

SEE LAPTOPS ON PAGE 8

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From the Editor's Desk

Dear Incoming Students,
Congratulations and welcome to the Colorado School of Mines! I hope you enjoyed the articles and features in our Summer Issue of The Oredigger Newspaper and hope that you found it beneficial. Our core goal here at the The Oredigger is to inform and entertain the members of the Colorado School of Mines community. We strive to provide timely and accurate information, with the hope that students will be encouraged to engage with the Faculty Senate, Associated Students of the Colorado School of Mines and all of the interesting facets of the Mines community.

To support these goals, we employ nearly 60 students as writers, photographers, administrative staff and Editorial Board members. Our writers and photographers provide us all of the wonderful work we have the privilege to print. Our content managers write articles, take photographs, manage a group of writers and photographers, and provide input on story ideas, layout and editing. The Editorial Board and our administrative staff handles the day-to-day operations of the newspaper. Our business team works with local, regional, national and international advertisers in designing and running advertisements. Our web team manages our website, oredigger.net, de-

signing, updating and improving it as necessary. The Editorial Board designs and edits the newspaper every week, looks for story ideas from the community and provides assistance to the writers, photographers and content managers.

If you are interested in joining The Oredigger or would like some more information, please feel free to send me an email at rbrowne@mines.edu. I will do my best to respond to you in a timely manner. In addition, we will have several informational meetings at the beginning of the school year where you can get all of your questions answered.

Have a great summer, and, again, welcome to Mines!

Ryan Browne
Editor-in-Chief



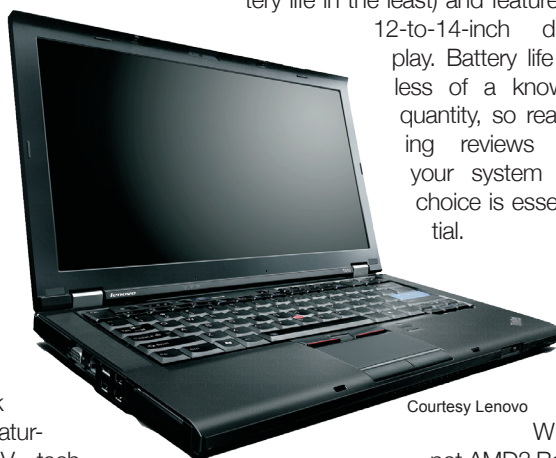
Going back to netbooks, many include Intel's Atom processor, mated with Intel's low-performing last-generation GMA graphics chip. Try to stay away from Atom N260 or N270 machines if at all possible, opting for systems with nVidia's well-rounded ION platform (an Atom mated with an nVidia GeForce 9400M

for better graphics power) or with a dual-core Atom processor, though these specs will bump the price for the machine up a bit. For more ambitious performance, look for machines featuring Intel's CULV tech, which includes a low-power Core 2 based processor for added performance without sacrificing battery life. Unfortunately AMD seems to still not have their act together with regard to a power-efficient, performance-conscious notebook processor, though the Neo, their Atom competitor, is making strides in that direction.

3. I want a Wintel

If you don't want an Apple computer and don't want to go the netbook route, there are a fair number of high-quality options available at this point. Going on specs alone, a

machine should have a Core 2 Duo or better processor (Core i5 or i7 are increasingly common and allow a healthy performance boost), include at least 2GB of memory (3GB or 4GB certainly doesn't hurt), pack integrated or switchable graphics (trust me, you don't want an always-on dedicated chip if you value battery life in the least) and feature a 12-to-14-inch display. Battery life is less of a known quantity, so reading reviews of your system of choice is essential.



Courtesy Lenovo

Lenovo ThinkPad T410

Why not AMD? Battery life, plain and simple. I have not seen an AMD-based system with battery life above two and a half hours on a standard-sized battery. Intel-based systems can double that. Battery life has gotten a kick in the upward direction of late, thanks to technology improvements and the advent of Windows 7, but the days of the two-hour battery are unfortunately long from over.

For specific system recommendations, try the Lenovo ThinkPad T410 (make sure to upgrade the battery past four cells, or go all the way to nine for ten-hour battery life) for a

good price-performance ratio. Dell's Latitude series are solid performers, as are HP Elitebooks. For Dell's consumer line, a computer from the Studio series can do the job. Toshiba also makes solid products, however reviews on their systems are scarce so I can't pass judgment on their systems. I haven't heard anything spectacular from Asus or Acer-Gateway-eMachines; stick to Dell, HP, Toshiba or the former IBM for a quality product.

4. Keep it safe

So you've established that you are buying a laptop. You probably want to protect that investment. On the software side backup utilities like Backblaze cost around \$50 per year and keep your computer's data safe on a near-realtime basis; unlike other backup operators Backblaze does not cap upload bandwidth to their service so backups will go quite quickly while on the campus network. On the hardware side, an extended warranty and/or accidental damage protection may be a worthwhile investment, and is certainly more important on laptops than more easily-operable desktop computers, which also tend to get dropped, worn or torn less than a notebook.

That word of advice concludes this year's notebook buying guide; comment on the online version of this article or send an e-mail to iiltman@mines.edu if you have any questions, or if you think that Dell's Streak tablet somehow has the "cool factor" of the Apple iPad.

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